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STATE OIL AND GAS BOARD OF ALABAMA

Tuscaloosa, Alabama

January 15, 2009

Testimony and proceedings before the State Oil and Gas Board in Special Session in the Board Room of the State Oil and Gas Board Building, University of Alabama Campus, Tuscaloosa, Alabama, pursuant to adjournment, on this the 15th day of January, 2009.

BEFORE

Mr. James H. Griggs	Chairman
Mr. Charles E. Pearson	Member
Mrs. Rebecca Wright Pritchett	Member

STAFF

Dr. Berry H. Tew, Jr.	Secretary and Supervisor
Mr. Marvin Rogers	Attorney
Dr. David E. Bolin	Deputy Director
Mr. Jay H. Masingill	Assistant Supervisor
Mr. Tom Sexton	Geologist
Mr. Jacques Chasse	Geologist

	Janua	ry 15, 2009
	APPEARA	ANCES
	NAME	REPRESENTING
1.	Rick Mixon Houston, TX	
2.	Brad Workman Northport, AL	
3.	Rick Payton Hoover, AL	Energen Resources Corp.
4.	Tom Watson Tuscaloosa, AL	Energen Resources Corp./ HighMount Black Warrior Basin/ Black Warrior Methane Corp.
5.	Steve Hutchings Mobile, AL	
6.	Bob Singleton Tuscaloosa, AL	HighMount Exp. & Prod.
7.	Eric Hutchens McCalla, AL	Black Warrior Methane Corp.
8.	Celeste Hagler Tuscaloosa, AL	El Paso E & P
9.	Matt Atchinson Birmingham, AL	Energen Resources Corp.
10.	Dennis Lathem Hoover, AL	CoalBed Association of Alabama
11.	Charles Willis Brookwood, AL	Black Warrior Methane Corp.
12.	Foster Arnold Tuscaloosa, AL	El Paso E & P
	 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 	APPEAR. NAME NAME Rick Mixon Houston, TX Brad Workman Northport, AL Rick Payton Hoover, AL Northyport, AL S. Rick Payton Hoover, AL S. Steve Hutchings Mobile, AL S. Steve Hutchings Mobile, AL S. Steve Hutchings Mobile, AL C. Bob Singleton Tuscaloosa, AL C. Eric Hutchens McCalla, AL C. Celeste Hagler Tuscaloosa, AL Matt Atchinson Birmingham, AL D. Dennis Lathem Hoover, AL C. Charles Willis Brookwood, AL C. Foster Arnold

				January 15, 2009		
12			APPI	EARANCES		
3 4 5 6	13.	NAME Seth Newton Tuscaloosa, AL			REPRESENTING	3
				3		

(The hearing was convened at 10:13 a.m. on Thursday, January 15, 2009, at Tuscaloosa, Alabama.)

CHAIRMAN GRIGGS: Let the record reflect that the State Oil and Gas Board of Alabama is now in session. I would like to make a brief comment. This agency and the State of Alabama lost a great friend this week. We want to note that in the record. I'm going to ask Dr. Tew who has had a great deal of experience and who had an ongoing working relationship with Senator Pat Lindsey to briefly explain what a great friend Senator Lindsey was to the State Oil and Gas Board and the Geological Survey and indeed to the State of Alabama.

DR. TEW: Yes sir, Mr. Chairman. As many of you know, Senator Lindsey was a great 11 friend to both the State Oil and Gas Board and the Geological Survey of Alabama. Senator 12 Lindsey was one of what now are two geologists in the Alabama State Legislature. He was 13 14 someone that we could go talk to and discuss our issues. He would understand those issues and he would then talk to his colleagues and make sure that they understood those issues. There was 15 16 never a time when I went down to visit with Senator Lindsey that he didn't give me time to sit down and thoroughly discuss whatever issue was in front of us to help us in any way that he 17 18 possibly could. I think many in this audience have also had that same experience with Senator Lindsey on various issues when working with legislation down there. He was a great friend to 19 the oil and gas industry. He understood it well. He certainly had a special place in his heart for 20 21 these agencies up here and what we do. We all mourn his passing. Not only have the agencies 22 lost a friend but I have also lost a personal friend. Thank you very much.

CHAIRMAN GRIGGS: Thank you, Dr. Tew. We sent along condolences to Senator
 Lindsey's family. Dr. Tew, have the items for the January 15, 2009, Special Board meeting been
 properly noticed?

DR. TEW: Members of the Board, the items for the January 15, 2009, Special Board

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27 meeting have been properly noticed and the docket is due to be admitted into the record.

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CHAIRMAN GRIGGS: The docket is admitted into the record.

AGENDA STATE OIL AND GAS BOARD OF ALABAMA SPECIAL BOARD MEETING JANUARY 15, 2009

The State Oil and Gas Board of Alabama will hold a Special Board meeting at 10:00 a.m. on Thursday, January 15, 2009, in the Board Room of the State Oil and Gas Board, Walter B. Jones Hall, University of Alabama Campus, 420 Hackberry Lane, Tuscaloosa, Alabama, to consider the following items:

1. DOCKET NO. 12-9-08-3

Petition by ENERGEN RESOURCES CORPORATION, an Alabama corporation, requesting the State Oil and Gas Board to enter an order amending Rule 4 of the Special Field Rules for Peterson Coal Degasification Field, Tuscaloosa County, Alabama, to allow a second well to be drilled and produced within 80-acre drainage or production units in the Field, in accordance with the provisions of Section 9-17-12b of the Code of Alabama (1975), as amended.

2. DOCKET NO. 12-9-08-4

Petition by ENERGEN RESOURCES CORPORATION, an Alabama corporation, requesting the State Oil and Gas Board to enter an order amending Rule 4 of the Special Field Rules for the Oak Grove Coal Degasification Field, Tuscaloosa and Jefferson Counties, Alabama, to allow a second well to be drilled and produced within 80-acre drainage or production units in the Field, in accordance with the provisions of Section 9-17-12b of the <u>Code of Alabama</u> (1975), as amended.

3. DOCKET NO. 12-9-08-5

Petition by ENERGEN RESOURCES CORPORATION, an Alabama corporation, requesting the State Oil and Gas Board to enter an order amending Rule 4 of the Special Field Rules for Cedar Cove Coal Degasification Field, Tuscaloosa County, Alabama, to allow a second well to be drilled and produced within 80-acre drainage or production units in the Field, in accordance with the provisions of Section 9-17-12b of the Code of Alabama (1975), as amended.

4. DOCKET NO. 12-9-08-6

Petition by ENERGEN RESOURCES CORPORATION, an Alabama corporation, requesting the State Oil and Gas Board to enter an order

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amending Rule 4 of the Special Field Rules for Holt Coal Degasification Field, Tuscaloosa County, Alabama, to allow a second well to be drilled and produced within 80-acre drainage or production units in the Field, in accordance with the provisions of Section 9-17-12b of the <u>Code of Alabama</u> (1975), as amended.

5. DOCKET NO. 12-9-08-8

Petition by HIGHMOUNT BLACK WARRIOR BASIN LLC, a foreign limited liability company, authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to enter an order amending Rule 4A of the Special Field Rules for Blue Creek Coal Degasification Field, Tuscaloosa and Fayette Counties, Alabama, to allow a second well to be drilled and produced within 80-acre drainage or production units in the Field, in accordance with the provisions of Section 9-17-12b of the <u>Code of Alabama</u> (1975), as amended.

6. DOCKET NO. 12-9-08-10

Petition by BLACK WARRIOR METHANE CORP., an Alabama corporation, and ENERGEN RESOURCES CORPORATION, an Alabama corporation, requesting the State Oil and Gas Board to enter an order amending Rule 4A of the Special Field Rules for Brookwood Coal Degasification Field, Tuscaloosa and Jefferson Counties, Alabama, to allow a second well to be drilled and produced within 80-acre drainage or production units in the Field, in accordance with the provisions of Section 9-17-12b of the Code of Alabama (1975), as amended.

Hearings of the State Oil and Gas Board are public hearings, and members of the public are invited to attend and present their position concerning petitions. Requests to continue or oppose a petition should be received by the Board at least two (2) days prior to the hearing. The public should be aware that a petition may be set for hearing on the first day or second day of the hearing or may be continued to another hearing at a later date. We suggest, therefore, that prior to the hearing, interested parties contact the Board to determine the status of a particular petition. For additional information, you may contact the State Oil and Gas Board, P. O Box 869999, Tuscaloosa, Alabama 35486-6999, Telephone Number 205/349-2852, Fax Number 205/349-2861, or by email at petitions@ogb.state.al.us.

MR. ROGERS: Chairman Griggs, Mr. Pearson and Mrs. Pritchett, proofs of publication

40 for these items were admitted into the record at the Board's hearing on December 9, 2008.

Items 1, 2, 3 & 4 January 15, 2009 1 Information posted on the Website of the Secretary of State announcing this Special Board 2 meeting on January 15, 2009, is due to be admitted into the record. 3 CHAIRMAN GRIGGS: Thank you Mr. Rogers. That information is admitted into the 4 record. 5 (Whereupon, posting of January 15, 2009, Special Board 6 Meeting on Secretary of State's Website was received in 7 evidence) 8 CHAIRMAN GRIGGS: Dr. Tew. 9 DR. TEW: The staff would recommend approval of the minutes from the following 10 meeting: October 14, 2008, Special Board Meeting. 11 MRS. PRITCHETT: So move. 12 MR. PEARSON: Second. 13 CHAIRMAN GRIGGS: A motion and a second. Any discussion? Hearing none, all in 14 favor say "aye." 15 (All Board members voted "ave") 16 CHAIRMAN GRIGGS: "Ayes" have it. The minutes are approved. 17 DR. TEW: Mr. Chairman, Mrs. Pritchett, Mr. Pearson, the staff has prepared an agenda 18 of the items to be heard by the Board today. Mr. Rogers, would you call the first item, please. 19 MR. ROGERS: Mr. Chairman and members of the Board, there are six items on the 20 docket today. The first item is Item No. 1, Docket No. 12-9-08-3B, amended petition by 21 Energen Resources Corporation. 22 MR. WATSON: Mr. Chairman, I'm Tom Watson here on behalf of Energen. In looking 23 at presenting these items I would like to consolidate Items 1, 2, 3 and 4 for hearing purposes, 24 please. 25 MR. GRIGGS: We will consolidate those items, Mr. Watson. 26 MR. WATSON: I have prefiled affidavits of notice in Item 2 and Item 4. Items 1 and 3 27 were noticed by publication. I would ask that you receive those affidavits of notice for Item 2 28 and Item 4 into the record.

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CHAIRMAN GRIGGS: The affidavits of notice for Item 2 and Item 4 are admitted into 1 2 evidence and admitted to the record. 3 (Whereupon, the affidavits were received in evidence) 4 MR. WATSON: Also Mr. Chairman, on July 16, 2008, Mr. Rogers sent to interested 5 parties a notification of a Supervisor's meeting that was held on July 23, 2008, at 10:30 to 6 discuss the amendment to the State Oil and Gas Board laws. I would like to have that admitted 7 into the record. 8 CHAIRMAN GRIGGS: It is admitted, Mr. Watson. 9 (Whereupon, memorandum to interested parties 10 was received in evidence) 11 MR. WATSON: I have two witnesses in these four consolidated items that I would like 12 to have sworn in, please. I would ask that they stand and be sworn in. 13 MR. ROGERS: Will you gentlemen state your names and addresses? 14 MR. PAYTON: Richard Payton, Hoover, Alabama. MR. WOOD: Robert Wood, Tuscaloosa, Alabama. 15 16 (Witnesses were sworn by Mr. Rogers) 17 MR. WATSON: One other housekeeping matter, Mr. Chairman. In presenting these 18 four consolidated items we are going to have Mr. Payton present engineering testimony and Mr. Wood present geological testimony. We have one set of geological exhibits that will cover all of 19 20 the fields being presented here today requesting amendments to Special Field Rules. I will go through that testimony with Mr. Wood in the presentation of these consolidated items and 21 22 introduce into the record a separate set of exhibits for each docket item so that the record would have a complete set of exhibits for all four items. Now, we have had conversations, I say we, the 23 operators and this Board, relative to the amendment to the Oil and Gas Statute, particularly 9-17-24 25 12 (b) that was approved by the Legislature on May 16, 2008, whereby the Legislature authorized a second well to be drilled on an 80-acre unit in a coal degasification field. That 26 amendment also allowed additional wells in shale fields established by this Board but that is not 27 28 the subject of our hearing today. We are here just to discuss amending particularly Rule 4 of the

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Special Field Rules for the Peterson, Oak Grove, Cedar Cove and Holt Coal Degasification 1 Fields. The way that this is being presented or what we are requesting the Board to do is to amend this Rule 4 that would allow the operator to file a permit application with the Supervisor for approval of the second well on an 80-acre unit. Our purpose today is to lay into the record a 4 5 justification for the amendment to these four sets of Special Field Rules and comply with the 6 burden of proof specified in this Bill that was passed by the Legislature on May 16, 2008. That 7 record, if approved by this Board, would be the justification then for your Supervisor to issue 8 permits for that second well to be drilled on an 80-acre coal degasification unit. As Mr. Pearson 9 and I discussed at a previous hearing that is on the record, this will not preclude an operator from petitioning the Board to reform a unit as we have in the past for the purpose of drilling a second 10 11 well. This will be simply another alternative available to operators to drill a second well without 12 having to reform the units, carving an 80 up into two 40's for the purpose of drilling a second 13 well on the 40 that does not have a producing well on it. We feel like this particular amendment, 14 once implemented by the Board through its Supervisor as you will hear in the statement from Mr. Payton, will expedite the drilling of wells, will increase recoveries, will extend the lives of 15 16 units and will avoid the drilling of unnecessary wells. Those are the primary burdens put on the operator by this new law that we have on the books. With that introduction, let me hand up to 17 18 you the booklets of exhibits that we will be using to testify. I have some extra copies for anyone 19 that would like to have a copy. You should have in front of you now the booklet of exhibits for 20 the Peterson Coal Degasification Field. If we are ready, Mr. Chairman, I will start with my first 21 witness.

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CHAIRMAN GRIGGS: Go ahead and proceed, Mr. Watson.

MR. WATSON: Mr. Payton, would you summarize for the Board Energen's position relative to the proposed amendments to these four fields that we have consolidated for hearing purposes. Let me qualify you first. Mr. Payton, do you have on file an affidavit of your qualifications as an engineer for Energen Resources Corporation?

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MR. PAYTON: Yes, in prior testimony I have been qualified.

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MR. WATSON: Have you prepared exhibits in support of these consolidated petitions 1 2 that we have called for hearing this morning? 3 MR. PAYTON: Yes I have. 4 MR. WATSON: Mr. Wood, you have on file an affidavit of your qualifications as a 5 petroleum geologist. Is that correct? 6 MR. WOOD: Yes I do. 7 MR. WATSON: Have you prepared geological exhibits in support of these consolidated 8 petitions this morning? 9 MR. WOOD: I have. 10 MR. WATSON: Mr. Chairman, I would tender Mr. Payton and Mr. Wood as experts for 11 giving testimony in these consolidated items. 12 CHAIRMAN GRIGGS: They are recognized as experts. 13 MR. WATSON: Mr. Payton, I apologize for being out of order. Would you give the 14 Board a summary of Energen's position relative to these amendments that we have called for 15 hearing this morning? MR. PAYTON: Yes, thank you. In recent years, Energen Resources Corporation has 16 17 drilled and completed numerous coal degasification wells in the Pottsville Formation of the Black Warrior Basin. The Pottsville Formation contains numerous coal seams and wells have 18 19 been completed in one or more of these coal seams throughout the basin in several coal 20 degasification fields established by the Board. Within the established coal degasification fields 21 evidence and testimony will be presented to the Board that coal seams are relatively uniform 22 throughout the various fields although the thickness of the seams and gas content may vary. It 23 would be accurate to say that the Black Warrior Basin is a well-defined source of coalbed methane gas and that additional wells can be drilled in the several established fields with a high 24 degree of certainty that the second well or wells will contribute additional production. 25 26 In recent years, Energen has reformed 43 wells from 80-acre units to 40-acre units in the 27 Cedar Cove, Peterson, Holt and Oak Grove Coal Degasification Fields, with a 100 percent

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success rate. The average initial increase in production from the former unit and the second well has been 175 Mcf/d with minimal impact on the parent well.

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It is Energen's belief that in many cases a second well is necessary to effectively produce the resource and by drilling a second well, as is shown by the production graphs, Energen has increased overall production in those areas with a second well. The determination of when and where to drill a second well will be made by the operator. The operator will factor in such things as topography, infrastructure such as pipelines, power, waterlines and roads; cultural improvements such as houses, subdivisions and commercial establishments; pre-existing contractual commitments, for example, surface mining agreements and underground mining plans, and whether necessary surface rights can be obtained for the drilling and operation of a second well.

Energen is prepared to move forward with drilling programs in 2009 that will utilize the proposed amended Special Field Rules for Cedar Cove, Peterson, Holt and Oak Grove. Energen has a 24-well program planned for the Cedar Cove, Peterson, and Holt Fields and a 30-plus well program planned for the Oak Grove Coal Degasification Field. Beyond these planned additional wells, Energen has also spotted over 200 potential future well site locations in the fields in which it operates wells.

18 The coalbed methane resource has been well defined by the several thousand wells that 19 are currently producing in the Black Warrior Basin. Energen and other coalbed degasification 20 companies are developing a mature resource as opposed to trying to define the resource. The 21 current challenge is to maximize the economic recovery of gas-in-place through better and more 22 efficient drilling and completion practices and in doing so significantly increase production from 23 the unit and extend the duration of production from the unit. These results will prove that the 24 second well is a necessary well and not an unnecessary well. The recent amendment to Sections 9-17-1, 9-17-6 and 9-17-12 of the Code of Alabama (1975), allowing a second well to be drilled 25 26 and produced within an 80-acre unit, will allow the operator to significantly increase production 27 and extend the duration of production from the various units as well as maximize the recovery of 28 this valuable clean burning natural resource without drilling unnecessary wells.

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Operators have the burden of proof to demonstrate to the Board, with substantial evidence based on geologic and engineering evidence and production information, that one well will not efficiently and economically drain an entire 80-acre unit. The evidence will show that one well has not efficiently and economically drained several selected 80-acre units because the second well, in most if not all cases, produces as much or more than the parent well that has been on production for years. If the parent well had efficiently and economically drained the subject units then the second well would not have been successful and would have, in fact, been an unnecessary well. The evidence shows that the second well increases production from the unit and projecting of that production indicates that the duration of production from the unit will be extended. It is our opinion that the evidence to be presented complies with the burden of proof set forth in the new statute. MR. WATSON: Mr. Chairman, the amendment to the rule that we are requesting and I want to read this into the record, it's relatively short, reads as follows: Rule 4--in this case for

13 want to read this into the record, it's relatively short, reads as follows: Rule 4--in this case for 14 the Peterson Field but will be the same language in the four fields as well as the others--currently 15 states that: Every well drilled as a coal degasification well in the Peterson Coal Degasification 16 Field shall be drilled on a drilling unit of approximately 40 contiguous acres consisting of a 17 governmental quarter-quarter section or on a drilling unit of approximately 80 contiguous acres consisting of two adjacent governmental quarter-quarter sections. That is the way the rule reads 18 19 today. Then we are asking you to add this sentence: A second well may be drilled and produced 20 within an established 80-acre production unit upon approval by the Supervisor. That is a simple 21 amendment to the rule that we are asking the Board to approve today. Let me call as my first 22 witness in support of this Peterson Field, Bob Wood, who is going to cover the geological 23 exhibits. Mr. Chairman, I had prefiled the statement that was just delivered by Mr. Payton so I 24 would ask that you make that a part of the record.

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CHAIRMAN GRIGGS: We will admit that to the record.

(Whereupon, the statement was received in evidence)

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1	ROBERT WOOD
2	Appearing as a witness on behalf of Petitioner, Energen Resources Corporation, testified
3	as follows:
4	DIRECT EXAMINATION
5	Questions by Mr. Watson:
6	Q. Mr. Wood, turn in the booklet of exhibits that you are sponsoring to Exhibit A-2. Tell us
7	what is shown on that exhibit, please.
8	A. The entire booklet is Exhibit 2 and within each of these booklets we have a number of
9	exhibits. A-2 is the location map showing the position of five cross sections which have
10	been prepared in support of this docket, 12-9-08-3, and the five additional petitions that
11	are on the docket for today. Exhibit 2 was actually copied from a publication that was
12	published by the Alabama Geological Survey and authored by Dr. Jack Pashin. Dr.
13	Pashin had divided the Basin into a number of cross sections. He had different cross
14	sections for each coal group. It was an excellent piece of work that Dr. Pashin did. In
15	order for continuity and brevity I used the cross sections that had been published by the
16	Geological Survey. As you can see on this exhibit we have cross section A-A' which
17	extends from the southwest in the Taylor Creek Field area to the northeast and terminates
18	in the White Oak Creek Field. That cross section will be the next exhibit that we will talk
19	about. It crosses a number of the fields in the Warrior Basin. The other cross sections
20	also cross some of the coalbed methane fields, in fact, all of the coalbed methane fields in
21	the Warrior Basin with the exception of Short Creek. Those would be subsequent
22	exhibits which were used to establish the stratigraphic nomenclature in a data base for
23	each of these fields. With this proposed new rule change with these fields I believe that it
24	was requested by the staff of the Oil and Gas Board that we show the continuity of coal
25	seams across this basin and establish a nomenclature so that different petitioners were not
26	utilizing different coal seam names, etc.
27	Q. Mr. Wood, the Statute that was recently approved by the Legislature requires that we
28	present geologic evidence relative to these coal fields and coal seams. You have

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described accurately how you have gone about doing that. On this Exhibit A-2 we are showing all of the fields, are we not, that is the subject of these consolidated items today? Yes we are.

Turn to your first line of cross section, A-A,' and describe that line of cross section relative to the underlying coal seams that are the subject to the development for coalbed gas.

A. Cross section A-A' is a stratigraphic cross section extending from the southwest to the northeast. The northeast is to the right-hand portion of this exhibit and the southwest is to the left-hand portion. This is a stratigraphic cross section, meaning that the datum for the cross section is a stratigraphic horizon. That is highlighted in red approximately just below the mid-part of the page of this exhibit. That is the top of the Mary Lee coal group. The various correlations between wells as they extend across the basin are shown using the gamma logs and the density logs from various coalbed methane wells. Across the top of this page in between the A and A' in green I have posted where coalbed methane fields are and where this line extends across areas that are not developed. They are designated as no field. The state permit number and the name of the well including the operator are also shown across the top-hand portion of this exhibit. On this exhibit on the far left next to the depth chart I have in the bluish-purple color the various coal groups as they extend across the basin. They are labeled. Within the coal groups they are designated with the black lines as they correlate and are picked in the various geophysical logs. Individual seams are shown in the red color as they extend across the basin. This cross section does cover quite a distance. It is many miles across Jefferson and Tuscaloosa Counties. The distance between wells is designated in miles between the wells. For example, the two center wells here are 12.34 miles apart. So, this does extend through quite some distance. Because it is unusual the way that these logs appear with the open space toward the right-hand upper portion of this exhibit, it is because the wells to the northeast are shallow. I inserted in Exhibit A-A' a structural cross section showing what this looks like based on sea level. You can see in the insert there that the wells are

1		shallow to the northeast. They get quite deep to the southwest. The coal groups are
2		found at much greater depths to the southwest and that is the reason the stratigraphic
3		section has an unusual appearance showing as it is on the plane from the southwest to the
4		northeast.
5	Q.	All right, Mr. Wood. I take it that it is your testimony that this is an accurate
6		representation of the existence of these coals as depicted on Exhibit A-A'. Is that
7		correct?
8	A.	That is correct. The purpose of this exhibit is to show the continuity of coal seams not
9		only across fields but across wide spaces of this Warrior Basin. We have known that the
10		seams had wide-spread occurrence even from the maps that were done by the Geological
11		Survey in the 1800's. Butts and others produced maps that were published by this Survey
12		that showed that the coal seams extended across wide portions of this basin. What we are
13		showing here today is that these coal seams not only have continuity within fields but
14		they also have continuity within the basin.
15	Q.	Let's go to B-B' now. This will cross fields that are the subject of the proposed
16		amendments, Oak Grove, Cedar Cove, and Brookwood. Describe that in summary for us,
17		please.
18	A.	Certainly. This exhibit was prepared identical to the A-A' and I would not repeat that
19		with each of these exhibits. If you will notice in the upper-hand portion where the fields
20		are named in the center of this exhibit you can see the Cedar Cove Field. The Cedar
21		Cove Field on this exhibit has the Energen Fikes-Taurus well which is State Permit No.
22		6911-C. The stratigraphic interval for the Cedar Cove Field is from the Utley to the base
23		of the Pottsville Formation. What I am showing on this cross section is not to the base of
24		the Pottsville Formation but through the Black Creek seam. It is really only that interval
25		that has been developed. Some of the initial wells back in the late 1980's did drill to the
26		base of the Pottsville Formation. The operators petitioned the Board to define the
27		productive interval to the base of the Pottsville Formation but that is not the interval that
28		has been developed. It is this interval basically from the Utley through the Black Creek

1		that has been developed in the Cedar Cove Field. The Brookwood Field would be to the
2		right of that. The defined interval for the Brookwood Field is near surface coal through
3		the Black Creek. That is also Utley coal. To the right of that would be the Oak Grove
4		Field. The defined interval in the Oak Grove Field is from the Utley through the Black
5		Creek. We are showing the defined interval on this exhibit and the continuity of the coal
6		seams, the coal groups, showing that the areas to be developed by the second well in a
7		unit is based on continuous coal seams and coal groups that are widespread across not
8		only these fields but the basin as well.
9	Q.	All right. Go to your cross section C-C', please.
10	A.	Cross section C-C' is in a different orientation. The northwest is to the left and the
11		southeast is to the right. This cross section shows the stratigraphy across the basin but
12		does not extend through any of the fields that are subject to the petitions today.
13	Q.	Cross section D-D'.
14	A.	Cross section D-D' also crosses the subject area from the northwest to the southeast. The
15		datum is the same. The construction method is the same. This cross section crosses the
16		Blue Creek Field to the left which is the subject of one of the dockets for today, the
17		petition by HighMount. It extends through the Holt and Peterson Fields and also Cedar
18		Cove. It shows that we have widespread coal seams that are correlatable across wide
19		spaces of the Warrior Basin. Just as the Special Field Rules for each of those fields
20		where it was found by the Board that the coal seams extended throughout those fields,
21		this document shows that they do have lateral continuity and extend across wide spaces
22		of the Basin.
23	Q.	Your final cross section, E-E'.
24	A.	E-E' is the last cross section. It also extends, crossing the other A-A' and B-B', almost
25		perpendicular from the northwest to the southeast. This cross section extends across the
26		Blue Creek and Oak Grove Fields and those are subject to petitions today. The defined
27		intervals for those fields are shown on this exhibit. It shows that we have continuity of
28		coal seams and that that is appropriate to develop these units based on the continuity of

1		those coal seams occurring not only across the fields but across these units for a second
2		well to be drilled. It will be developing the coal and gas resources of these fields.
3	Q.	So then, Mr. Wood, after having studied these geological maps and reports of the Survey
4		you would agreed with Mr. Payton's statement that this Warrior Basin is relatively
5		uniform in its coal seams, although the thickness of the seams vary. Would it also be
6		accurate and would you agree with Mr. Payton that the Black Warrior Basin and that
7		portion of it that is the subject of these hearings today is a well-defined source of coalbed
8		methane gas and based on that definition that additional wells can be drilled in the field
9		based on the operator's determination of where those are needed?
10	A.	Yes sir. I studied not only the publications of the Geological Survey but I have studied
11		the individual well records and logs. I have pulled the Special Field Rules for each of
12		these fields and referred to the defined intervals where they were defined in wells and
13		logs and exhibits. It is my opinion that this shows continuity across these coal seams
14		throughout the fields and it would be widespread and the units can be developed in
15		accordance with the new provision.
16		RICHARD PAYTON
17		Appearing as a witness on behalf of Petitioner, Energen Resources Corporation, testified
18	as foll	ows:
19		DIRECT EXAMINATION
20	Questi	ons by Mr. Watson:
21	Q.	Now, Mr. Payton, let's go back to the booklet of exhibits to Exhibit 1-A.
22	A.	This exhibit shows the outline of the Peterson Coal Degasification Field. Indicated in
23		green are the units that were reformed that we are going to discuss today.
24	Q.	Is it your testimony then that these units outlined in green are representative samples of
25		coal degasification units in the Peterson Field?
26	A.	Yes they are.
27	Q.	Turn to your next exhibit which is a tabular presentation of various wells in the Peterson
28		Field.
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This exhibit shows the parent well and the second well for each of the units that we are going to discuss today. It shows the well name, permit number, first sales date and current production. An important thing to note on this exhibit is the first sales date of the parent well which in all cases on this exhibit was in 1991 which indicates that that well has been on production 17 years prior to the drilling of the second well. In the far-right column the current production indicates that the parent well is still producing significant gas and the second well is also a successful well.

Q. All right sir.

A.

Go to the next page and we will begin to go through the individual graphs of the parent A. well and the second well. The first well, the parent well is the 1700 well, Permit No. 8696-C. Note in the top right-hand corner the 1771 number and a line drawn down to the production plot. That indicates when the second well was brought on line. Also note that the gas production on this graph is a solid line shown in Mcf/d. The dotted line is water production in barrels per day. This is the life of the well production graph. It shows that the current production on the parent well is 83 Mcf/d. At the time the second well was drilled there was very little impact on the parent well. Turn to the next page. This is the second well drilled. Due to the limited time this well has been on production, this is a production plot of daily production so that we could have more data points to show you the production trend of this well. The well came on after only a few days of pumping and has had fairly steady production with a current production rate of 150 Mcf/d. The next example, the parent well is the 1343 well, Permit No. 8333-C. Well 1775 in the upper right-hand corner shows when that well came on line. As you can see the parent well has been on a steady decline but that decline rate from the shape of the curve has not really changed since the second well was brought on line. The current production is 109 Mcf/d. The second well, the 1775 well, is currently producing 126 Mcf/d. The third example, the parent well is the 1672 well, Permit No. 8540-C. The graph shows that the 1779 well, the second well, was put on line with little or no impact on the parent well. The parent well is currently making 69 Mcf/d. The second well, the 1779 well, has relatively stable

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1		production. The one dip early on was an operational issue. It is currently making 147
2		Mcf/d. The next example, the parent well is the 1690 well, Permit No. 8538-C. Again
3		this shows when the second well was brought on line. No change in the slope of the
4		curve. The parent well is making 83 Mcf/d. The second well, the 1781 well, had a peak
5		rate a little over 200 Mcf/d. It is currently making 193 Mcf/d. The dip in production
6		there was operational issues again. You can see that when we brought the water rate
7		back up the gas rate came back with it.
8	Q.	All those rates, both for the parent and the second well, are set out in that tabular form
9		behind your map of the field. Is that right?
10	A.	That's correct.
11		MR. WATSON: At this point, Mr. Chairman, the geological exhibits in support of the
12	Oak (Grove Field were contained in that Exhibit 2 to the testimony of Mr. Wood, so we will just
13	start with Mr. Payton here at Oak Grove. I will ask him to start through this booklet of exhibits.	
14	We will not repeat the geological testimony.	
15	G.	Mr. Payton, let's look at your Exhibit 1A. Tell us what is shown there, please sir.
16	A.	Exhibit 1A shows the outline of the Oak Grove Coal Degasification Field and also shows
17		the units that we are going to highlight today to show the production on. I would note
18		that I only had one example of a reformed unit in the Oak Grove Field. In discussions
19		with the staff they requested that I select some older 80-acre units that had been offset by
20		40-acre units. I did that and picked wells across the entire width of the field.
21	Q.	Is it your testimony that these wells are representative of the point that the second well
22		meets the statutory burden in the amended law?
23	A.	Yes.
24	Q.	If you would like, Mr. Payton, you can quickly run through the graphs. I would point out
25		that Exhibit 3 will give you a tabular representation of the parent and the second well and
26		the various volumes but you are going to go through those in your graphs. Do you want
27		to turn to your graph and start with the first well?

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1 A. Yes. The first example is an example of a unit that was reformed. The parent well is the 2 806 well, Permit No. 6825-C. It has been on production since 1990. You can see by the 3 9420 number at the top and the line drawn down when the second well came on line. Actually for a period there was a little assistance to the parent well by the second well. 4 5 The decline curve has not changed. The parent well is currently making 42 Mcf/d. The second well, the 9420 well, has been fairly stable throughout its life. It has been on 6 7 production since 2004. It is currently making 89 Mcf/d. The next example is an example 8 of an 80-acre unit offset by a 40-acre unit. This is the 197A well, Permit No. 6907-C. 9 When the 9653 well was drilled there was actually improved production on the parent 10 well. The little decline at the end is an operational issue. You can see that the water rate 11 has dropped but it is still currently making 62 Mcf/d. The second well, the 9653 well, 12 was drilled in 2004. It has also been an excellent well. It is currently making 82 Mcf/d. The next example is also an 80-acre unit that was offset by a 40-acre unit. This is the 846 13 well, Permit No. 6425-C, again showing when the 9025 well was brought on line. There 14 15 is minimal impact on the parent well. The parent well is currently making 80 Mcf/d. Once again, the 9025 well was brought on line in late 2002. It has also been a very good 16 17 well. It is currently making 135 Mcf/d. The next example is also an 80-acre unit offset 18 by a 40-acre unit. This is the 790 well, Permit No. 6362-C. The 9130 well was drilled to 19 offset it. There has been an increase in production on the parent well since the second well was drilled. The current production is 60 Mcf/d. The 9130 well was brought on line 20 in 2004. Again, it is an excellent well. The current production is 106 Mcf/d. 21 To get a glance, a bird's eye view, of all these wells, Exhibit 3 would give you that parent 22 Q. and second well's production in current Mcf/d. Is that correct? 23 24 A. Correct and also indicates the age of the parent well. 25 All right sir. Let's go to our next field which is Cedar Cove. Q. 26 A. Exhibit 1A is an outline of the Cedar Cove Coal Degasification Field. Indicated in green 27 are the units that were reformed to allow the drilling of the second well.

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	Q.	Are these wells that were selected and shown in green representative of what a second
		well would do in this particular field?
	A.	Yes sir they are.
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Q. Exhibit 3 again is our tabular form. Let's go straight to your graphs and go through those please.

6 A. The first example, the parent well is the 1365 well, Permit No. 7254-C, and an indication 7 of when the second well, the 1038 well, was drilled with no change in the decline curve. 8 The parent well is doing 76 Mcf/d. The 1038 well drilled in 2008 has fairly flat 9 production. The current production is 183 Mcf/d. The next example, the parent well is 10 the 1171 well, Permit No. 6745-C, and an indication of when the second well, the 1020 11 well, was drilled. The parent well was already on decline. There is little change and it is 12 currently doing 57 Mcf/d. The second well, the 1020 well, Permit No. 13454-C, again is 13 an excellent well. The current production is 62 Mcf/d. The next example, the parent well 14 is the 1118 well, Permit No. 6765-C, and an indication of when the second well, the 1044 15 well, was drilled with little or no change in the decline curve. The current production is 16 68 Mcf/d. The second well, the 1044 well, Permit No. 15133-C, was brought on line in 17 2007 and it is currently making 115 Mcf/d. The next example, the parent well is the 1109 18 well, Permit No. 6946-C, and an indication of when the second well, the 1055 well, was 19 drilled. Somewhat flattening of the decline curve. The current production is 38 Mcf/d. 20 The second well, the 1055 well, Permit No. 15103-C, is a very good well. The current 21 production is 214 Mcf/d.

Q. Again, Exhibit No. 3 is the tabular depiction of those parent and second wells. At a
glance you can see the parent well production in Mcf/d as well as the second well's
production. Is that correct?

25 A. That's correct.

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26 Q. That basically shows in every case there is an increase in production with the second well.

28 A. That's correct.

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Q. Let's go to our final field, the Holt Field.

A. Once again Exhibit 1A shows an outline of the Holt Coal Degasification Field and in green are the units that were reformed to allow the drilling of the second well.

Q. These wells are representative of what a second well would do in this field. Is that your testimony, Mr. Payton?

A. Yes they are.

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Q. Let's go directly to your Exhibit 4 which is the start of your production graphs.

8 Α. The first example, the parent well is the 1604 well, Permit No. 8706-C, and an indication 9 of when the second well, the 1941 well, was drilled. The parent well is currently making 10 140 Mcf/d. The second well, the 1941 well, Permit No. 15526-C, flat production 11 currently making 192 Mcf/d. The next example, the parent well is the 1607 well, Permit 12 No. 8707-C, and an indication of when the second well, the 1943 well, was drilled. The 13 current production on the parent well is 168 Mcf/d. The second well, the 1943 well, 14 Permit No. 15504-C, flat production. The current rate is 152 Mcf/d. The next example, 15 the parent well is the 1608 well, Permit No. 8556-C, and an indication of when the 16 second well, the 1944 well, was drilled. Production on the parent well is 127 Mcf/d. The 17 second well, the 1944 well, Permit No. 15525-C, current production is 417 Mcf/d. 18 **O**. Again, Mr. Payton, Exhibit 3 gives these production rates that you have just testified to 19 off the graph. These wells were reformed from 80's to two 40's with the current well. 20 The second well was drilled on the 40 that did not have a well. Those were all drilled 21 under the Board's procedures where we sought and received consent from those owners 22 to reform those units, correct?

23 A. That's correct.

Q. Each of the 40 acres would receive the production attributed to that 40 acres, the parent
well and the second well. Under this new amendment, if you are allowed to drill these
second wells on an 80-acre unit, those royalty owners would receive the combined
production from the parent well as well as the second well. Is that right?
A. That's correct.

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1	Q.	So, where the operator can as a prudent operator determine the appropriate time and place
2		to drill a second well, it would greatly benefit not only the royalty owners but it will
3		benefit the State of Alabama through increased severance taxes and benefit Energen in
4		that the cash flow would benefit from that additional production. Is that correct?
5	A.	Yes sir, that's correct.
6	Q.	Apparently from the wells that you have selected here to reform and drill, they have all
7		been in the best interest of all those parties that I have just named. Is that right?
8	A.	That's correct and we plan to continue.
9	Q.	In making an application to the Supervisor if these amendments are made to these four
10		fields, there will be a determination process that you will go through before you decide to
11		drill a second well on a particular 80-acre unit. It will have to meet those criteria that
12		Energen sets out to meet the requirements of this law. That is to increase production to
13		extend the life of the unit and to avoid drilling unnecessary wells. Is that right?
14	A.	That's correct.
15	Q.	If a second well would not meet those tests, then that second well would not be drilled on
16		that 80-acre unit. Just because the rule allows it, it wouldn't automatically happen, would
17		it?
18	A.	That's right.
19		MR. WATSON: Now, Mr. Chairman, I have extra copies of the geological exhibits for
20	the ot	her three fields that Mr. Payton testified to. I'm going to hand those up now so that those
21	can be	e included in each of the docket item records for the Board. I would ask both of my
22	witne	sses if the approval of the amendment to Rule 4 as I read into the record allowing a second
23	well t	o be drilled upon application to the Supervisor would prevent waste, protect correlative
24	rights	and comply with the recently amended provisions of 9-17-12(b) and other provisions that
25	were a	amended in that law. Do you say that it will, Mr. Payton?
26		MR. PAYTON: Yes I do.
27		MR. WATSON: Mr. Wood?
28		MR. WOOD: Yes it will.

Items 1, 2, 3 & 4 January 15, 2009 1 MR. WATSON: I tender these witnesses for questions on these first four consolidated 2 items, Mr. Chairman. CHAIRMAN GRIGGS: Mr. Watson, we have not admitted these exhibits to the record 3 4 yet. MR. WATSON: I would like for you to admit those four exhibits. 5 CHAIRMAN GRIGGS: For housekeeping purposes I need to go through these. The first 6 Exhibit No. 2 prepared by Mr. Wood which included A2 and 2/A-A', 2/B-B', 2/C-C', 2/D-D', 7 8 and 2/E-E', that applies to all four of these petitions. Is that correct? 9 MR. WATSON: That is correct. 10 CHAIRMAN GRIGGS: Okay. That will be admitted in all four of these docket items. 11 MR. WATSON: I have handed up separate booklets for each of those, Mr. Chairman. 12 That's correct. CHAIRMAN GRIGGS: That exhibit is admitted. 13 (Whereupon, the exhibit was received in evidence) 14 CHAIRMAN GRIGGS: With regard to the Peterson Coal Degasification Field, Exhibits 15 1A and 3 through 11, Mr. Payton, you did not prepare Exhibit 1A. That was prepared by Mr. 16 17 Wood and in each case for each of these three fields, the 1A was prepared by Mr. Wood but it is your opinion that it accurately reflects the information that it is intended to be portrayed there? 18 MR. PAYTON: It does. 19 20 CHAIRMAN GRIGGS: Okay. The exhibits are admitted to Docket Item No. 1. (Whereupon, the exhibits were received in evidence) 21 22 CHAIRMAN GRIGGS: The next set of Exhibits 1A and 3 through 11, Oak Grove Coal Degasification Field, is admitted to Item No. 2. 23 24 (Whereupon, the exhibits were received in evidence) CHAIRMAN GRIGGS: The next set of Exhibits 1A and 3 through 11, Cedar Cove Coal 25 26 Degasification Field, is admitted to Docket Item No. 3. 27 (Whereupon, the exhibits were received in evidence)

1		CHAIRMAN GRIGGS: The next Exhibits 1A and 3 through 9, Holt Coal Degasification
2	Field,	are admitted to Docket Item No. 4.
3		(Whereupon, the exhibits were received in evidence)
4		CHAIRMAN GRIGGS: Dr. Tew, do you have any questions in regard to any of these
5	four p	etitions or does your staff?
6		DR. TEW: Mr. Chairman, we have no questions at this time.
7		CHAIRMAN GRIGGS: Board members, any questions?
8		ROBERT WOOD
9		EXAMINATION BY BOARD/STAFF
10	Quest	ions by Mr. Pearson:
11	Q.	Mr. Wood, your exhibit on the cross section, understanding that the petitions here today
12		are seeking an amendment that would require a fieldwide application in each of these
13		fields, do you believe that the information and evidence that you reviewed in preparing
14		your cross section was of sufficient quality and weight to allow you to make the opinions
15		that you have given here today?
16	A.	Yes it was.
17	Q.	Is it your opinion that it is more likely than not that the quality and characteristics of the
18		coal in a general sense would be the same throughout each of these fields?
19	A.	That is correct.
20		RICHARD PAYTON
21		EXAMINATION BY BOARD/STAFF
22	Questi	ons by Mr. Pearson:
23	Q.	Mr. Payton, similar question to you. Understanding that the amendment is seeking
24		fieldwide application, looking at the data am I correct that in every case that you
25		presented in your exhibits that the second well that you have illustrated following the
26		parent well has at least doubled or more than doubled production from either the actual
27		unit that you have demonstrated or the hypothetical units where you had 40's next to
28		80's?

Items 1, 2, 3 & 4

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1	A.	Yes sir.	
2	Q.	Do you believe that the weight and quality of the evidence that you have reviewed in	
3		preparing your exhibits is sufficient for you to give the opinions here today that you have	
4		given?	
5	A.	Yes sir I do.	
6	Q.	Would it be your opinion that more likely than not in the remaining areas of each of these	
7		fields that you would expect a second well to encounter similar decline curves to what	
8		you have exhibited here today?	
9	A.	Yes sir. We did qualify that in many cases a second well would be necessary. It may not	
10		be necessary in all cases but in many cases. I think what we have given is representative	
11		of the results that we would see.	
12	Q.	And would be representative of the field as a whole?	
13	A.	Yes sir.	
14		MR. PEARSON: Thank you. No further questions.	
15		CHAIRMAN GRIGGS: Mrs. Pritchett.	
16		MRS. PRITCHETT: Mr. Watson, could you briefly go through for me the notice given	
17	in eacl	n of these? I know in Items No. 1 and 3 you indicated that notice was given via	
18	publication notice. Why was that? In Items No. 2 and 4 what notice was given and to whom?		
19		MR. WATSON: The items that were publication only, under the rules we have to give	
20	notice	to other operators in the field. In Item 1 Energen is the only operator in the field, hence	
21	publication. In Item 3, the Cedar Cove Coal Degasification Field, that's publication notice. I		
22	filed affidavits of notice in Items 2 and 4 where there are other operators in the field and I		
23	notice	d those operators.	
24		MRS. PRITCHETT: Okay. You received green cards for each of those?	
25		MR. WATSON: No. It was not certified mail. It was a first-class mail notice under the	
26	rule.		
27		MRS. PRITCHETT: Okay. Thank you.	

Item 5 January 15, 2009 1 CHAIRMAN: Any other questions by the staff or the Board? Entertain a motion on 2 these four docket items. 3 MR. PEARSON: I move that we grant the petitions. 4 MRS. PRITCHETT: Second. 5 CHAIRMAN GRIGGS: Have a motion and a second. Any further discussion? Hearing 6 none, we will call for a vote. All in favor say "ave." 7 (All Board members voted "aye") 8 CHAIRMAN GRIGGS: "Ayes" have it. The petitions are granted. 9 MR. WATSON: Thank you, Mr. Chairman. 10 CHAIRMAN GRIGGS: Mr. Rogers. 11 MR. ROGERS: That brings us to Item 5, Docket No. 12-9-08-8B, petition by HighMount Black Warrior Basin, LLC. 12 13 MR. WATSON: I have one witness in this item along with Mr. Wood who I will remind 14 him he is under oath. Would you please swear in Mr. Singleton? 15 MR. ROGERS: Will you state your name and address? 16 MR. SINGLETON: Robert Singleton, Tuscaloosa, Alabama. 17 (Witness was sworn by Mr. Rogers) 18 MR. WATSON: Mr. Singleton, you have appeared before this Board and have on file an 19 affidavit of your qualifications as a petroleum engineer. Is that correct? 20 MR. SINGLETON: I do. MR. WATSON: You are familiar with the petition on file here today asking the Board to 21 22 amend the Special Field Rules, particularly Rule 4 of the Special Field Rules, for the Blue Creek 23 **Coal Degasification Field?** 24 MR. SINGLETON: Yes sir I am. 25 MR. WATSON: Have you prepared along with Mr. Wood exhibits in support of the 26 proposed amendment to the Blue Creek Field? 27 MR. SINGLETON: I have.

January 15, 2009 1 MR. ROGERS: Mr. Watson, do you want to submit the signed one for this item? We 2 have Exhibit 2 but the other exhibits? 3 MR. WATSON: I have it right here Mr. Rogers. You have on file an affidavit of your 4 qualifications. You have prepared and under your supervision Mr. Wood has prepared exhibits 5 in support of this petition. I tender him as an expert petroleum witness for giving testimony in this item, Mr. Chairman. 6 7 CHAIRMAN GRIGGS: The Board recognizes Mr. Singleton as an expert petroleum 8 engineer. 9 **ROBERT SINGLETON** Appearing as a witness on behalf of Petitioner, HighMount Black Warrior Basin, Inc., 10 testified as follows: 11 12 DIRECT EXAMINATION 13 Questions by Mr. Watson: 14 **O**. Mr. Singleton, open the booklet to Exhibit No. 1. Tell the Board what is shown there, 15 please. 16 Exhibit No. 1 is an area field location map of the Blue Creek Coal Degasification Field A. 17 located in Tuscaloosa County. Shown on the map are wells representative of all the wells in the field. These representative wells consist of what will be described or what I will 18 19 describe as the original well that is a well that was drilled and completed on an 80-acre 20 unit, and then a second well drilled as a result of a unit reformation on an offset 40-acre 21 unit. There are six representative pairs of wells shown on this exhibit and in the 22 following exhibits I have prepared production graphs for each of the original wells and 23 the second wells showing gas and water production rates for each of the pairs of wells 24 over a specific time period. 25 MR. WATSON: Mr. Chairman, Exhibit 2 in support of this amendment for Blue Creek 26 is the geological exhibit prepared by Mr. Wood. It also bears a docket number for this item. I 27 will not go back through that but by reference would ask that the testimony that Mr. Wood gave 28 that also covers the Blue Creek Field be incorporated by reference into this docket number.

Item 5

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January 15, 2009 1 CHAIRMAN GRIGGS: We will incorporate that testimony by reference, Mr. Watson. 2 The exhibit has already been admitted into this docket. 3 (Whereupon, prior testimony was incorporated by reference) 4 MR. WATSON: Thank you. 5 **Q**. Turn then, Mr. Singleton, to Exhibit No. 3. Go through these graphs and tell us about the 6 original and second well production history. 7 Α. Exhibit 3 contains two graphs. The top graph is the production graph from the original 8 well described earlier that was drilled on the original 80-acre unit. The second well, 9 labeled second well, is on a common time scale. In other words, both graphs start on the 10 same date. When you see the second well come on line that is on a common scale 11 relative to the original well. The left-hand axis is the gas production rate which is 12 depicted in blue for each of the pairs of wells in Mcf per day. The right-hand axis is the 13 water production rate for each well on a common scale projected in barrels of water per 14 day. 15 **O**. If the Board will indulge us, if they would turn to the last page in this exhibit booklet, 16 Exhibit No. 4, as you go through these exhibits they can see in tabular form what is 17 shown on these graphs. Is that right? That's correct. 18 A. 19 Q. Let's flip over to that Exhibit 4 on this original and second well and tell us what those 20 graphs are showing in terms of numbers of Mcf per day. 21 Α. On Exhibit 4 it shows in tabular form the original well in the first pair of wells at the top. 22 You have the original well, the Jolen 35-06-839 well, Permit No. 14588-C. Its original 23 on-line date was on 8/22/2006. On January 7, 2009, the production from that original 24 well was 33 Mcf a day. Paired with that original well is the second well that was drilled 25 on the reformed 40-acre unit associated with that original 80-acre unit. In this case it was 26 the Jolen 35-05-1120 well, Permit No. 15310-C. Its original on-line date was 8/9/2007. 27 Production on January 7, 2009, from that Jolen 1120 well was 47 Mcf a day. Going

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further it shows the same type data for each of those wells. Should I go through those wells individually?

. Let's run through those quickly. I'll spare you; the original well there was the Jones 1080 well, Permit No. 14421-C. You can pick up there and tell me the on-line date of that and the production on January 7th.

The on-line date was May 3, 2006. Production on January 7, 2009, was 146 Mcf a day. The second well or the reformed 40-acre well drilled in that unit is the Jones 1108 well. Its original on-line date was July 19, 2007. Its production on January 7, 2009, was 48 Mcf a day. Next in the list, the original well depicted is the Jernigan 1068 well, Permit No. 14617-C. Its original on-line date was June 26, 2006. On January 7, 2009, it was producing 70 Mcf a day. The second well or the reformed 40-acre well drilled on that original 80-acre unit is the Jernigan 1106 well, Permit No. 15379-C. Its original on-line date was October 4, 2007. On January 7th of this year it was making 15 Mcf a day. Next, the original well depicted is the Jolen 711 well, Permit No. 14240-C. Its original on-line date was December 2, 2005. On January 7th of this year it was making 25 Mcf a day. The second well following the same nomenclature is the Jolen 1126 well, Permit No. 15419-C. Its original on-line date was December 12, 2007. Production on January 7th of this year was 43 Mcf a day. The next pair of wells, the original well is the Holman 1054 well, Permit No. 14257-C. Its original on-line date was December 20, 2005. Production on January 7th of this year was 31 Mcf a day. The second well, the reformed well added to that unit, is the Holman 1140 Well, Permit No. 15208-C. Its original on-line date was June 15, 2007. Production on January 7th of this year was 63 Mcf a day. The last set of data, the original well is the Jolen 843 well, Permit No. 14639-C. Its original on-line date was October 9, 2006. Production on January 7th of this year was 61 Mcf a day. The well added as a second well in that original 80-acre unit, the reformed well, is the Jolen 1133, Permit No. 15106-C. Its original on-line date was April 18, 2007. On January 7th of this year it was making 80 Mcf a day.

January 15, 2009

All right. Now, all of these rates are depicted on your graphs. There are two wells, the

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Q.

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2		1080 and the 1068 that the parent well or the original well is producing more than the
3		second well. From your graphs, are there any operational things going on that you can
4		tell the Board about relative to those second wells, those two?
5	А.	As the noise in the graph would depict on that original well, the Jones 1080, there are
6		several interruptions to the water production rate and fluctuations in the gas production
7		rate. In that particular case it appears that since early November of 2008 the gas
8		production rate has increased dramatically in that well from roughly 50 Mcf a day to
9		currently over 140 Mcf a day. It is a very encouraging sign and something that is not
10		totally unusual or unexpected in lots of wells in the Blue Creek Field. The second well as
11		you see when it came on line specifically on July 19, 2007, the gas rate is on a slight
12		incline and is currently producing 48 Mcf a day.
13	Q.	The other well, the Jernigan 1068.
14	A.	The Jernigan 1068 as you can see if you flip back to the graph, its original on-line date
15		was June 26, 2006. Again, there is what appears to be some noise or fluctuations in both
16		the water and gas rates from that well. The production from the original well is depicted
17		and appears to be on a very positive incline. That incline appears to have started or it
18		coincides nicely with the on-line date of the second well which was October 4, 2007.
19	Q.	Now, these rates as depicted on Exhibit 4 under the proposed rule amendment if the
20		second well had been drilled on an 80-acre unit, in every case shown by these
21		representative wells, production would have been increased by the drilling of a second
22		well, would it not?
23	A.	Yes sir as the data depicts.
24	Q.	Would you conclude from that that by increasing the production all the other factors that
25		go into keeping a well on line, would it be fair to say that that increased production would
26		extend the life of that unit?
27	A.	In every case I think that is fair to say.

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Item 5 January 15, 2009 1 Q. Were any of the wells that are depicted on these examples that you have shown on 2 Exhibit 4 unnecessary wells? 3 A. In our opinion, no sir. 4 О. You heard in a previous docket I read for the Board the proposed amendment to Rule 4 of 5 the Special Field Rules for those Energen operated wells. That same language is 6 proposed for the Blue Creek Field in the proposed amendment to those Special Field 7 Rules, is it not? 8 Α. Yes sir. 9 Q. In other words, you are asking the Board to approve the rule that would allow a second 10 well to be drilled and produced within an established 80-acre production unit upon 11 approval of a permit application by the Supervisor? 12 A. That's correct. 13 Q. Is it your testimony to the Board that if your company, HighMount, decides to drill a 14 second well on a particular 80-acre unit that it would have factored in such factors as 15 topography, infrastructure, and all those other factors in determining whether to drill that 16 second well? 17 Α. Those factors as well as a very strong factor of economics, yes sir. 18 Q. Economics and budgetary constraints, etc. that an operator may have? 19 A. Absolutely. 20 Q. Less we not mention gas prices. 21 A. That factors hugely into economics for us, yes sir. 22 ROBERT WOOD 23 Appearing as a witness on behalf of Petitioner, HighMount Black Warrior Basin, Inc., testified as follows: 24 25 DIRECT EXAMINATION 26 Questions by Mr. Watson: 27 Q. Mr. Wood, your testimony in your Exhibit 2 that you gave that we have incorporated into 28 the record, will you confirm for us as it relates to the Blue Creek Coal Degasification

January 15, 2009 Field that your answers would be the same relative to that as they were to Mr. Pearson's 1 2 questions on the Energen operated fields? That is correct. The Blue Creek Field has coal seams defined from the Cobb through the 3 A. Boyles. It is primarily the Cobb through the Black Creek that is developed and those are 4 widespread and continuous across this field. 5 6 MR. WATSON: I'll ask each of you gentlemen if the granting of this proposed 7 amendment to the Blue Creek Coal Degasification Field will prevent waste, protect correlative 8 rights and meet the burdens imposed by the recently amended 9-17-12 of the Code of Alabama. Mr. Singleton? 9 10 MR. SINGLETON: Yes sir in my opinion it would. 11 MR. WATSON: Mr. Wood? 12 MR. WOOD: Yes it will. MR. WATSON: Mr. Chairman, I would ask that you received into the record of this 13 hearing the exhibits testified to by Mr. Singleton. 14 CHAIRMAN GRIGGS: Mr. Singleton, again Exhibit No. 1, you did not prepare this 15 exhibit but in your opinion does it accurately reflect the information that it intends to portray? 16 17 MR. SINGLETON: It does. It was prepared under my supervision so it does. CHAIRMAN GRIGGS: Thank you sir. Mr. Watson, Exhibit No. 1 and Exhibit 3 and 4 18 19 are admitted into the evidence. (Whereupon, the exhibits were received in evidence) 20 MR. ROGERS: Mr. Chairman, we're not sure that the affidavit of notice on this item got 21 22 admitted. CHAIRMAN GRIGGS: We will admit it. 23 (Whereupon, the affidavit was received in evidence) 24 MR. WATSON: You are right, Mr. Rogers, I failed to ask that it be admitted. I did file, 25 26 Mrs. Pritchett, an affidavit of notice in this item for Blue Creek because there are other operators in the field. I think, Mr. Chairman, that there has been at least one written response from another 27

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Item 5 January 15, 2009 operator to the Supervisor. If it would be appropriate I assume you would take that into the record. CHAIRMAN GRIGGS: Ms. Arnold, welcome. MS. ARNOLD: Good morning. Foster Arnold on behalf of El Paso E & P Company, L.P. Mr. Watson and Mr. Singleton made certain reference to factors that HighMount would go through; an analysis of whether an infield drill was in fact a prudent drill. It's just a written letter from El Paso essentially reiterating that that will be its position in determining an infield drill in each instance, whether in fact it is a prudent drill. We would like to have that letter admitted to the record. MR. WATSON: No objection, Mr. Chairman. MS. ARNOLD: They have no objection to the petition. MR. ROGERS: We have that letter, Mr. Chairman. CHAIRMAN GRIGGS: That letter is admitted to the record. (Whereupon, the letter was received in evidence) MR. WATSON: I tender my witnesses to the Board and staff for any questions they may have. CHAIRMAN GRIGGS: Dr. Tew, do you or the staff have any questions? DR. TEW: No sir, not at this time. CHAIRMAN GRIGGS: Board members? Mr. Pearson. **ROBERT SINGLETON**

22 Questions by Mr. Pearson:

Q. Mr. Singleton, do you believe that the evidence that you have reviewed and given your
opinions today is of a sufficient weight and quality to give those opinions?

EXAMINATION BY BOARD/STAFF

25 A. I do.

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Q. In tracking Ms. Arnold's comments a moment ago for the record, assuming that
HighMount would consider whatever criteria and come to the conclusion that it was
prudent to drill an additional well elsewhere in this field, is it your opinion that in those

Item 5 Item 6 January 15, 2009 circumstances that more likely than not HighMount would see in the second well 1 increases in production and duration of production consistent with what you have 2 presented in your other testimony? 3 4 A. That's correct, more likely than not. 5 I note that your exhibit indicates that in all of the six units that you have illustrated where Q. 6 a second well was drilled, all six units showed an increased in production. Is that right? 7 Production from the original unit showed increased production, yes sir. A. 8 With respect to that unit it looks like in four of the six, the production actually doubled or Q. 9 is greater. Is that right? I haven't gone through that math but it is certainly significantly better from the second 10 A. 11 well than the first well, yes sir. 12 Is it your opinion then that based on your earlier testimony that it is more likely than not Q. if HighMount considers the criteria to drill a second well elsewhere in the unit that it is 13 more likely than not that such a second well would significantly increase production from 14 the unit? 15 16 That is certainly our hope, yes sir. A. 17 MR. PEARSON: No further questions. CHAIRMAN GRIGGS: Any further questions? Hearing none, I entertain a motion. 18 19 MRS. PRITCHETT: Mr. Chairman, I move that the motion be granted. 20 MR. PEARSON: Second. 21 CHAIRMAN GRIGGS: Have a motion and a second. Any further discussion on the 22 motion? Call for a vote. All in favor say "aye." 23 (All Board members voted "aye") CHAIRMAN GRIGGS: "Ayes" have it. Petition is granted. 24 25 MR. ROGERS: That brings us to Item 6, Docket No. 12-9-08-10B, amended petition by 26 two petitioners, Black Warrior Methane Corporation and Energen Resources Corporation. 27 MR. WATSON: I have one witness and would like to have him sworn in, Mr. Chairman. 28 MR. ROGERS: Will you state your name and address?

Item 6 January 15, 2009 1 MR. HUTCHENS: Eric Hutchens, McCalla, Alabama. 2 (Witness was sworn by Mr. Rogers) 3 MR. WATSON: Mr. Hutchens, you have appeared before this Board and have on file an 4 affidavit of your qualifications as a Production Superintendent at the Brookwood Coal 5 Degasification Field. Is that correct? MR. HUTCHENS: That is correct. 6 7 MR. WATSON: Have you prepared or had prepared under your supervision exhibits in 8 support of the petition to amend Rule 4A of the Special Field Rules for the Brookwood Coal 9 Degasification Field? 10 MR. HUTCHENS: Yes I have. 11 MR. WATSON: I tender him as an expert and would remind Mr. Wood that he is under 12 oath for giving testimony in this item, Mr. Chairman. 13 CHAIRMAN GRIGGS: The Board recognizes Mr. Hutchens as an expert production 14 superintendent. 15 ERIC HUTCHENS 16 Appearing as a witness on behalf of Petitioners, Black Warrior Methane Corporation and 17 Energen Resources Corporation, testified as follows: 18 DIRECT EXAMINATION 19 Questions by Mr. Watson: 20 Q. Mr. Hutchens, turn in the booklet of exhibits to your first exhibit labeled A1 and tell the Board what is shown there. 21 22 A. Exhibit A1 is an area map that denotes the Brookwood Coal Degasification Field. The 23 reformed units are shown in green that will show as the production graphs in the 24 testimony. 25 Q. Are these units that are shown in green representative of wells in the Brookwood Coal 26 Degasification Field that would point out that the drilling of a second well would increase 27 production in the unit and extend the life of that unit? 28 Yes. A.

		Item 6
		January 15, 2009
1	Q.	Now this petition is a joint petition by Black Warrior Methane and Energen Resources
2		Corporation. Is that because Energen also operates some wells in the Brookwood Coal
3		Degasification Field?
4	A.	That is correct.
5	Q.	You have worked with Energen in putting this presentation together. They have
6		reviewed it and have worked with you in making this presentation possible today?
7	A.	That is correct.
8	Q.	Turn in the booklet to the next exhibit marked Exhibit 1. Tell us what is shown on that
9		exhibit, please.
10	A.	Exhibit 1 is a tabular spreadsheet that shows all the wells noted on the first area map. It
11		shows a parent well and a second well that was drilled in the original unit along with the
12		pertinent well numbers, permit numbers, date the units were reformed, Board order
13		numbers, locations, the original unit and the reformed unit.
14	Q.	Go to your next exhibit which is marked key exhibit. Before you start testifying to this
15		exhibit, am I correct in stating that this exhibit is a summary of the graphs that follow for
16		the various wells, those seven wells that you have depicted as representative in the
17		Brookwood Field?
18	A.	That is correct.
19	Q.	What I would like for you to do as the other witnesses have done, I would like for you to
20		go through each of these seven wells and give us the parent well and the second well,
21		please.
22	A.	On the exhibit key this exhibit is almost identical to the first exhibits other than this has
23		the production information to the far right. The parent well, the first example is the 31-
24		02-348. The second well is the 31-07-503.
25	Q.	What is the current production for the parent well?
26	A.	The production average that is shown to the right is for approximately a year to an 18-
27		month period. It is 160 Mcf for the 348 well and 81 Mcf for the 503 well.
28	Q.	Now these are averaged over a period of a year to 18 months, correct?

1	A.	That is correct.
2	Q.	The second parent well.
3	A.	The parent well is the 31-13-347 well. The production average on this well was 66 Mcf
4		per day. The second well is the 31-12-507 well. The production average on this well is
5		110 Mcf per day.
6	Q.	The third well.
7	A.	The parent well is the 31-11-313 well. The production on that well per day was 47 Mcf
8		per day. The second well in that unit is the 31-14-511 well. The production on that well
9		was 148 Mcf.
10	Q.	Now you just said 47 per day. Is that the average?
11	А.	Yes, all these are averages. The fourth well, the parent well is the 06-04-372 well. The
12		average production on that well was 120 Mcf per day for this period. The second well
13		drilled on that unit was the 06-03-512 well. The production average on that well was 116
14		Mcf per day. The fifth well, the parent well is the 32-05-263 well. The production
15		average on that well is 46 Mcf per day. The second well drilled in that unit is the 32-04-
16		508 well. The production average on that well is 126 Mcf per day. The sixth well, the
17		parent well is the 30-07-07 well. The production average on that well is 47 Mcf per day.
18		The second well drilled in that unit is the 30-02-498 well. The production average on
19		that well is 45 Mcf per day. The final well shown on this report, the parent well is the 05-
20		02-365 well. The production average on this well for this time period is 65 Mcf per day.
21		The second well drilled in that production unit is the 05-07-428 well. The average
22		production on that well is 81 Mcf per day.
23	Q.	All right. I'm not going to have you go through each of these graphs, but is the tabular
24		information shown on your exhibit key accurately portrayed and depicted on the
25		following graphs for each of the wells, both the parent and the second well?
26	A.	Yes it is.
27	Q.	You are showing the gas and water production?
28	A.	Yes we are.

Item 6 January 15, 2009 Q. Mr. Hutchens, is it fair to say that the second well in each of these seven units that you have depicted as representative in the Brookwood Coal Degasification Field when combined increases the production on that unit? Α. Yes. Actually I averaged the production that is shown on these graphs. The average production for the parent well is 78 Mcf per day. The average second well shown on these graphs is actually 94 Mcf per day. It actually increased overall. If you combine the parent well with the production from the second well, the production Q. for the unit has increased and in most cases significantly increased. Is that correct? That is correct. Α. Q. Is it your testimony then that by drilling the second well you are increasing the production on the unit and thereby extending the life of that unit? Α. Yes. **Q**. Were any of these wells based on the numbers that you have on your key exhibit unnecessary wells in your opinion? No. A. Q. All were necessary wells and all have contributed additional production. Combined with the parent and the second well, it is your testimony then that the life of the unit will be extended because you have additional production? Yes I feel it will. A. Q. The rule that we are proposing, Rule 4A, the amendment to the rule for the Brookwood Coal Degasification Field, I have read into the record for the other fields that the Board has considered this morning. It simply is to add the language that a second well may be drilled and produced within an established 80-acre production unit upon approval by the Supervisor. Do you support that amendment? A. Yes I do. Q. Now, the Brookwood Coal Degasification Field Special Field Rules are a little different

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environment. Is that right?

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because there is variable spacing in the field because of the underground mining

1	A.	That is correct.
2	Q.	In other words, we have variable spacing in the field?
3	A.	Yes.
4	Q.	You understand that under the amendment to the law that we have talked about today, 9-
5		17-12, that the only unit that can be supportive of a second well is an 80-acre production
6		unit. You cannot put a second well on a 40-acre production unit. Do you understand
7		that?
8	A .	Yes I do.
9	Q.	These rules are tailored just to apply to an 80-acre production unit, are they not, the
10		proposed amendment?
11	A.	They are.
12	Q.	Black Warrior Methane Corporation and your co-petitioner, Energen Resources
13		Corporation, in the Brookwood Field would engage in a decision-making process as to
14		when to drill that second well based on factors such that we have described earlier,
15		economics, access, infrastructure, budgetary constraints and gas prices. Is that a fair
16		statement?
17	A.	Yes that is.
18	Q.	Those are the factors, among others, not to be exclusive but those are some of the factors
19		that Black Warrior Methane as an operator would consider in determining whether to
20		drill a second well?
21	A.	Yes we will.
22		MR. WATSON: Mr. Chairman, let me ask Mr. Wood this question.
23		ROBERT WOOD
24		Appearing as a witness on behalf of Petitioners, Black Warrior Methane Corporation and
25	Energ	en Resources Corporation, testified as follows:

	Item 6 January 15, 2009		
	Sundary 15, 2005		
1	DIRECT EXAMINATION		
2	Questions by Mr. Watson:		
3	Q. Mr. Wood, your Exhibit No. 2, your geological exhibits have a line of cross section		
4	across the Brookwood Coal Degasification Field. You have looked at the geology in the		
5	Brookwood Coal Degasification Field and your conclusion is?		
6	A. My conclusion is that the coal seams are widespread and continuous across the field as		
7	being developed in coalbed methane and also underground mining and that the addition		
8	should be supported.		
9	MR. WATSON: I'll ask each of you gentlemen if the granting of this petition amending		
10	the Special Field Rules for the Brookwood Coal Degasification Field would in your opinion		
11	prevent waste and protect correlative rights and comply with the burden of proof set forth in the		
12	amended 9-17-12 section of the Code of Alabama. Mr. Hutchens?		
13	MR. HUTCHENS: Yes.		
14	MR. WATSON: Mr. Wood?		
15	MR. WOOD: Yes.		
16	MR. WATSON: Mr. Chairman, although Mr. Hutchens did not prepare Exhibit A1, Mr.		
17	Hutchens was this Exhibit A1, the outline of the Brookwood Coal Degasification Field, prepared		
18	by Mr. Wood and does it accurately portray what it is intended to portray?		
19	MR. HUTCHENS: Yes it does.		
20	MR. WATSON: With that qualification, Mr. Chairman, I would offer into evidence the		
21	exhibits in support of Docket No. 12-9-08-10, along with Exhibit 2 by Mr. Wood.		
22	CHAIRMAN GRIGGS: Mr. Watson, Exhibit 2 by Mr. Wood has been admitted but if		
23	not it will be admitted and the exhibits provided in regard to Docket Item 6 are admitted.		
24	(Whereupon, the exhibits were received in evidence)		
25	MR. WATSON: I tender my witnesses to the Board and staff for any questions you have		
26	on this item.		
27	CHAIRMAN GRIGGS: Dr. Tew.		

January 15, 2009

1		ERIC HUTCHENS
2		EXAMINATION BY BOARD/STAFF
3	Quest	tions by Dr. Tew:
4	Q.	Mr. Hutchens, first a point of clarification. On your Exhibit No. 1 you indicate the first
5		column to the left there as a well number column and then on all your graphs you have
6		designated a lease number. Could you clarify that for us?
7	A.	Yes. It is actually the same. These graphs were pulled out of production. That is the
8		way it is set up in the software that we pulled them out of. That's all it is.
9	Q.	So those numbers are the same for a well number and then on your chart, that actually
10		correlates to a State Oil and Gas Board permit number. Is that correct?
11	A.	That is correct.
12	Q.	Thank you for that. On all your graphs for the parent wells, Mr. Hutchens, you don't
13		really include very much data prior to the date of the reformation. They are all very near
14		that point of reformation in the parent well so we don't' have a lot of information about
15		the production profile of those parent wells prior to that. Could you comment on that
16		please and let us know something about what those wells were doing prior to that
17		reformation.
18	A.	Yes. What we ended up doing when we started looking at this process, we tried to find a
19		snapshot in time that was depictative of the history of the wells and this just happened to
20		be the time period that we picked out. If need be we could get you some other history on
21		it but the history of most of the production on these wells is very similar to what we are
22		looking at here.
23	Q.	So it would be your testimony that there was no significant decline or change in the
24		profile of production of those parent wells when those second wells came on line. Is that
25		correct?
26	A.	Very little.

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1	Que	stions by Mrs. Pritchett:
2	Q.	On Exhibit 2A the lease number which I assume is well number 31-13-347, your chart for
3		the parent well actually starts with the date that it looks like the second well was put in.
4		There is no historical information prior to the date that the first well was put in.
5	A.	That's correct.
6	Q.	Your testimony is that there was no drop in production in that well also?
7	A.	That is correct. We feel that there was minimal impact on the parent well with the second
8		well being drilled.
9	Ques	stions by Mr. Pearson:
10	Q.	Mr. Hutchens, do I understand correctly that you are the Production Superintendent and
11		Operations Manager for Black Warrior Methane?
12	A.	Yes.
13	Q.	In that position am I correct that you are familiar with the production histories and data of
14		all these wells?
15	A.	Yes.
16	Q.	Is the evidence that you have reviewed in presenting this exhibit of sufficient weight and
17		qualify for you to give the opinions that you have given here today?
18	A.	Yes I feel it is.
19	Q.	Is it your opinion that it is more likely than not that if Black Warrior Methane and/or
20		Energen deem it prudent to drill a second well within an 80-acre unit elsewhere in this
21		field that such a well would exhibit significant increases in production for that unit?
22	A.	Yes, more likely than not.
23	Q.	Would it also be your testimony as an expert that it is more likely than not that a second
24		well drilled under prudent circumstances would extend the duration of production from
25		an 80-acre unit elsewhere in the unit?
26	A.	Yes.
27		MR. PEARSON: Thank you. No further questions.
28		CHAIRMAN GRIGGS: Any further questions?

	Item 6	
	January 15, 2009	
1	DR. TEW: No, not from the staff.	
2	CHAIRMAN GRIGGS: The Board would entertain a motion.	
3	MR. PEARSON: I move that we grant the petition.	
4	MRS. PRITCHETT: Second.	
5	CHAIRMAN GRIGGS: A motion and a second. Any further discussion? Hearing none,	
6	all in favor say "aye."	
7	(All Board members voted "aye")	
8	CHAIRMAN GRIGGS: "Ayes" have it. The amended petition is granted.	
9	MR. WATSON: Thank you, Mr. Chairman.	
10	MR. ROGERS: Mr. Chairman, that's all the items set for hearing today.	
11	CHAIRMAN GRIGGS: Entertain a motion to adjourn.	
12	MRS. PRITCHETT: So move.	
13	MR. PEARSON: Second.	
14	CHAIRMAN GRIGGS: Motion and a second. We stand adjourned.	
15	(Whereupon, the hearing was adjourned at 11:50 a.m)	
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REPORTER'S CERTIFICATE

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COUNTY OF TUSCALOOSA

I, Rickey Estes, Hearing Reporter in and for the State of Alabama, do hereby certify that on Thursday, January 15, 2009, in the Board Room of the State Oil and Gas Board Building, University of Alabama Campus, Tuscaloosa, Alabama, I reported the proceedings before the State Oil and Gas Board in Special Session; that the foregoing 44 typewritten pages contain a true and accurate verbatim transcription of said proceedings to the best of my ability, skill, knowledge, and belief.

I further certify that I am neither kin or counsel to the parties to said cause, nor in any manner interested in the results thereof.

ckeer Estes

Rickey Estes Hearing Reporter